

REMARKS/ARGUMENTS

In response to the Office Action mailed August 9, 2005, Applicant amends his application and requests reconsideration. In this Amendment examined claims 2 and 11 are canceled and new claims 12-21 are added. Accordingly, claims 1, 3-10, and 12-21 are now pending.

The invention concerns a closure for a vessel containing a liquid in which the liquid may be withdrawn from the vessel by suction. In the absence of suction, the vessel is closed by the closure and the liquid cannot escape from the vessel. Many closures for vessels providing the same effect, i.e., avoiding spilling or leaking in the absence of application of suction at an exit hole, are known. However, the closure as defined by the examined claims and by the claims now pending is different in structure from known closures and is therefore clearly patentable.

Claim 1 has been amended by including the limitation of claim 2 along with some non-substantive clarifications. The closure defined by amended claim 1 includes a cap, a support, and a valve member. The cap includes a first aperture, the support includes a second aperture, and the valve member includes a resiliently deformable diaphragm including a third aperture. The diaphragm is interposed between an end of the mouthpiece, which protrudes from the cap, and the support, which is located inside the cap, including partially inside the mouthpiece, and that supports the diaphragm. When no suction is applied through the first aperture, the diaphragm is in its normal state and is in contact the support. In that situation, the support closes the third aperture, i.e., the aperture in the diaphragm, and the diaphragm closes the second aperture, i.e., the aperture in the support, so that liquid within the vessel cannot escape. When suction is applied through the first aperture, the diaphragm is deformed or deflected and moves away from the support. When the diaphragm moves away from the support, the support no longer closes the third aperture and the diaphragm no longer closes the second aperture. Thereby, a fluid flow path is established from the interior of the vessel to the exterior through, in sequence, the second aperture, the third aperture, and the first aperture.

All examined claims were rejected as anticipated by Dark (U.S. Patent 6,616,012). This rejection is respectfully traversed.

Dark describes two different embodiments of a fluid dispensing valve. In the first embodiment, depicted in Figures 5-8 of the Dark, the valve includes a support 44 including a number of apertures 50. The support includes a protruding centrally located post 48. A diaphragm 60 includes a central aperture through which the post 48 protrudes. The mouthpiece or cap includes some kind of ill-described opening through which the fluid in the container can flow when the "valve body 60" is deflected. Figure 5 of Dark shows the closed arrangement of the valve, Figure 6 shows a transition state, and Figure 7 shows a dispensing state. As can be seen in Figures 5-7 of Dark, the valve body or diaphragm 60 never closes or bears against the peripheral part of the support 44 and, therefore, never closes the apertures 50 in that support. Rather, in the closed, i.e., non-dispensing, configuration of Figure 5, the contact between the post 48 and the inside diameter of the aperture 67 of the valve body 60 provides the desired closure. In other words, referring to the Dark closure using the language of amended claim 1, the third aperture in the Dark valve member is closed by the support in the normal situation but, unlike the closure of claim 1, the second aperture in the support in Dark is never closed by the valve member. The second embodiment described by Dark is, in this regard, not different from the first embodiment described by Dark. The valve body never closes the apertures 50 in the support. Because at least one feature of the invention as described by independent 1 is missing from Dark, Dark cannot anticipate that claim nor any of its dependent claims 3-10. Upon reconsideration, the rejection must be withdrawn.

Many of the examined dependent claims also include features that are distinct from Dark, contrary to assertions of the Office Action. For example, claim 3 describes the diaphragm as being concave and the support as having a concave part that receives the diaphragm in the normal condition. The Office Action did not refer to this claim limitation and it is apparent by inspection of Figures 4 and 10 of Dark that the limitations of claim 3 are not met by Dark. For example, although in the first embodiment described by Dark the valve body might be considered to have a concave part, no part of the support is concave. While it might be argued that the support in Figure 10 of Dark includes a concave part because of the presence of the ridge 52, it is apparent that the diaphragm is not concave in that embodiment. Moreover, it is clear that one cannot employ the concave valve body 60 of Figure 2 of Dark successfully with the support of Dark's Figure

10. Even if this combination were attempted, it is apparent that no possible combination of the various valve bodies and supports can result in the valve body blocking the apertures 50 in the support in any described condition or operation of the Dark valve. Accordingly, *prima facie* obviousness of examined claim 3 and its dependent claim 4 has not yet been established.


Examined claim 8 describes a valve member as mounted on and enclosing the support. No reasonable interpretation of either of the embodiment of the valve described by Dark could be considered to show the valve body as enclosing the support 40. By contrast, by inspecting the embodiment of the invention illustrated in Figures 2 and 3 of the patent application, it can be seen that the valve member encloses the support. Because this feature of the invention is missing from Dark, claim 8, as examined, is clearly patentable over Dark.

The closure described by examined claim 10 includes, in the cap, a least one breather hole. As understood in this technology, the breather hole provides inflow of air to the interior of the vessel so that liquid may be discharged from the vessel. According to the Office Action, the cap in Dark includes a breather hole 38. This statement is incorrect as to what element 38 is in Dark and incorrect in asserting that there are any breather holes in the valve arrangement of Dark. Dark identifies element 38 as a retaining rim, not a breather hole. Further, breather holes are not needed in Dark as is made clear by the description pertaining to Figures 8 and 14. The vessel described by Dark is intended to discharge a liquid or a viscous fluid by squeezing and compressing the vessel. When pressure is applied externally to a flexible vessel, it is elementary that the fluid contents can be discharged even if air is not simultaneously admitted to the interior of the vessel. Recognizing that fact and the necessity of admitting air in order to restore the vessel to its original shape, Dark provides a venting arrangement illustrated in those Figures 8 and 14. In the venting arrangement, air flows back into the vessel through the same holes or apertures used in discharging the contents of the Dark vessel. By contrast, in the invention, the breather holes are and must be separate from any of the first, second, and third apertures because air flows through the breather holes to permit simultaneous flow of liquid out of the vessel. The rejection of claim 10 as anticipated is not defensible.

New claims 12-21 are fully supported by the application as filed. These claims can be readily read upon the exemplary embodiment described in the patent application and do not at this time require further explanation. All of the newly submitted claims are clearly patentable over Dark. Independent claim 12 describes a closure that includes a breather hole, a feature already described as absent from Dark, notwithstanding the erroneous contrary statement in the Office Action of August 7. New dependent claim 21, depending from claim 1, also includes to the breather hole feature. Nearly all of added dependent claims 13-20 include features not disclosed by Dark so that Dark can neither describe nor suggest any of those claims. Likewise, review of the prior art publications cited so far in the prosecution of this patent application does not reveal any description that anticipates or suggests the invention as defined by the claims now pending.

Upon reconsideration, the previous rejection should be withdrawn and all of the claims now pending allowed.

Respectfully submitted,


Jeffrey A. Wyand, Reg. No. 29,458
LEYDIG, VOIT & MAYER
700 Thirteenth Street, N.W., Suite 300
Washington, DC 20005-3960
(202) 737-6770 (telephone)
(202) 737-6776 (facsimile)

Date:

JAW/jj

November 8, 2005